

REMARKS

The Examiner's Action mailed October 10, 2006 has been given careful consideration by the Applicants who respectfully request reconsideration and reexamination of the application. Claims 1-7 and 15-19 remain in the application.

The Office Action

The Examiner rejected claims 1-7 and 15-19 under 35 U.S.C. § 102(b) as being anticipated by Vild et al. The Examiner did not list the U.S. Patent Number in the Action. However, it is assumed that Vild refers to U.S. Patent No. 6,217,823.

Cited Art

Examiner's reference Vild is a metal scrap submergence device comprising an open top chamber including walls of heat resistant material, an inlet positioned in the side wall of the chamber, an outlet positioned in the base of the chamber, and a ramp adjacent to the side wall of the chamber. Vild also includes a bottom inlet and a bottom outlet opening design. The bottom inlet is displayed at 30 of Figure 2 of the Vild patent.

The Present Application

By way of review, the present application relates to a molten metal submergence device. This device includes a submergence chamber, an inlet pipe, and a vortex breaker. The submergence is defined by side wall and includes an inlet which is in communication with an associated molten metal bath. The device also includes an outlet which is in communication with the associated molten metal bath. The inlet is positioned in relation to the side wall so that the material which is passing through the inlet is introduced at at least a substantially tangential relationship to the side wall. The inlet pipe is partially positioned within the confines of the sidewall. The inlet pipe may also be in communication with the cell where the inlet pipe is adapted to draw the molten metal mixture from below the layer of the molten metal bath.

Independent Claims 1, 15 and 19 Are Not Anticipated by Vild

Regarding independent claim 1, which was rejected under 35 U.S.C. § 102(b), Applicant respectfully traverses for at least the following reasons. Claim 1 states that the inlet is positioned in relation to the side wall such that material passing through the inlet is introduced and at least substantially tangentially to the side wall. Vild does not disclose or even suggest such a feature. Vild has an inlet design which is shown at 30 of Figure 2. The inlet in Vild is merely an opening that is not substantially tangential to the side wall.

The present application also includes language that states that the inlet pipe is configured to depend from a wall of the submergence chamber inside of the confines of the side wall. Vild does not include an inlet pipe. Instead Vild discloses an opening which acts as a connector to the cavity. This configuration cannot be equated to an inlet pipe that is within the confines of the side wall.

Now referring to claim 15, which was also rejected under 35 U.S.C. § 102(b). Claim 15 includes an inlet pipe which is adapted to draw the molten metal mixture from below the layer of at least substantially pure molten metal. It is hereby submitted that Vild does not disclose or suggest any relationship to the layer of substantially pure molten metal or from where the mixture is drawn. Evidence of such is that in all five figures there is no reference to the environment in which the metal scrap submergence device would exist. It is therefore respectfully submitted that there is no suggestion as to where the inlet pipe draws the molten metal mixture in relation to the layer of substantially pure molten metal.

Now referring to claim 19, which was rejected under 35 U.S.C. § 102(b) as being anticipated by Vild, claim 19 states that the inlet is positioned in relation to the side wall such that material passing through the inlet is introduced at least substantially tangentially to the side wall. Again, the inlet as is disclosed in Vild does not introduce the material passing through it at a tangential relationship to the side wall.

Claim 19 also includes that the inlet pipe is configured to depend from a wall of the submergence chamber within the confines of the side wall. Vild does not include a pipe that goes into the confines of the side wall. Vild merely discloses an opening to a

chamber and a not a pipe which pierces through the side wall and is exposed within the confines of the side wall.

Because of the reasons stated above, it is respectfully requested that the rejections to independent claims 1, 15 and 19 be withdrawn.

Dependent Claims 2-7 and 16-18 are Currently in Condition for Allowance

All remaining claims in the application are either directly or indirectly dependent from claims 1, 15 or 19. It is again submitted that all independent claims, for the reasons stated above, are in condition for allowance. It is therefore also submitted that all dependent claims which are dependent from the independent claims are also in condition for allowance. It is requested that the rejection to these dependent claims be withdrawn.

Specifically, claim 5 which states that the discharge tube aligns with a horizontal axis of the submergence chamber along at least a substantial length of the discharge tube. As stated above, Vild does not include a discharge tube. Instead Vild discloses an inlet opening at 30 in Figure 2. Claim 5 also includes that the discharge tube be aligned along with a horizontal axis of the submergence chamber. The opening in Vild is not along a horizontal axis, but is instead angled along a charge well at a diagonal. It is hereby submitted that claim 5 specifically should be allowed in its present form and the rejection should therefore be withdrawn.

CONCLUSION

For the reasons detailed above, it is respectfully submitted that all claims (Claims 1-7 and 15-19) are in condition for allowance. The foregoing comments do not require unnecessary additional search for examination.

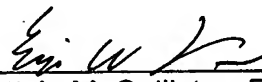
In the event the Examiner considers personal contact advantageous to the disposition of the case, he/she is hereby authorized to telephone Scott M. McCollister at 216-861-5582.

Respectfully submitted,

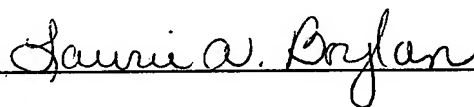
FAY SHARPE LLP

April 10, 2007

Date



Scott A. McCollister, Reg. No. 33,961
Eric W. Lee, Reg. No. 58,857
1100 Superior Avenue, Seventh Floor.
Cleveland, OH 44114-2579
216-861-5582

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